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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,698	02/11/2002	Arto Haapakoski	413-010836-US(PAR)	4406
2512	7590	01/14/2005	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			TRINH, SONNY	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,698

Applicant(s)

HAAPAKOSKI, ARTO

Examiner

Sonny TRINH

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5 and 8 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 5, 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitmarsh et al. ("Whitmarsh"; U.S. Patent Number 5,623,226) in view of Harris ("Harris"; U.S. Patent Number 4,870,374).

Regarding **claim 1**, with reference to figure 1 and its description in columns 3-4, Whitmarsh discloses a method to reduce interference in a radio transmitter employing a Cartesian which comprises, listed in the direction of propagation of signal, at least one differential amplifier (figure 1, elements 12A, 12B), a modulator (Upconversion 6), first level control unit (inherent), a power amplifier (7), a directional coupler (8) and an antenna (RF output 9) as well as a feedback path from the directional coupler to said differential amplifiers (see feedback path at the bottom of figure 1), which feedback path

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comprises a second level control unit and a demodulator (10) to linearize the radio transmitter (figure 3, abstract, claim 14, columns 1-2).

However, Whitmarsh does not explicitly disclose that the level of at least one input signal of the said modulator is measured and compared to adjust the level of the attenuator.

In an analogous art, Harris teaches an analog phase modulation system which utilizes a control loop that operates only on signal amplitudes to control the output signal. With reference to figures 2 and 3, Harris further teaches that the level of at least one input signal of the said modulator is measured and compared to adjust the level of the attenuator (columns 4-6, specifically line 50 of column 5 to line 8 of column 6).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the measuring and comparing of the signal at the input of the modulator, as taught by Harris, to the system of Whitmarsh in order to eliminate interference causes by an abnormally transmission power by a mobile terminal.

Regarding **claims 5 and 8**, these claims merely reflect the apparatus to the method claim of claim 1 and are therefore rejected for the same reasons.

Regarding **claim 2**, the combination of Whitmarsh and Harris discloses the invention but does not disclose that the measures to set the attenuation of the first level control unit being carried out in conjunction with manufacture of the radio transmitter. However, it would have been obvious and well within the level of a person of ordinary skill in the art to set the attenuation of the control unit in conjunction with manufacture of

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the radio transmitter in order to minimize human intervention (once the radio transmitter is a finished product).

Allowable Subject Matter

3. **Claims 3-4, 6-7** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding **claims 3-4**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claims 3-4, specifically, wherein the radio transmitter functions according to a system based on time division technology, measures to set the attenuation of the first level control unit being carried out repeatedly in a free time slot (claim 3) or the transmission time slot (claim 4) of said system when the radio transmitter is in operation.

Regarding **claim 6**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claim 6, specifically, said means to measure the level of at least one input signal of the modulator comprising an analog-to-digital converter and said means to compare the level of at least one input signal of the modulator and to set the attenuation of the first level control unit comprising a processor.

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Regarding **claim 7**, the prior art provided numerous examples of minimizing interferences in a transmitter circuit, but failed to disclose or fairly suggest the specific combination of structural and functional limitations set forth in claim 7, specifically, said means to measure the level of at least one input signal of the modulator and to compare the level to a certain reference level, and to set the attenuation of the first level control unit, comprising an analog comparator and amplifier.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for formal communications intended for entry, for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, 6th Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonny TRINH whose telephone number is 703-305-1961. The examiner can normally be reached on Monday-Thursday and on alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed URBAN can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SONNY TRINH
PRIMARY EXAMINER

1/11/05